

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP2004/003766

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 F16C17/03

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 F16C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 743 657 A (STOPP PETER G ET AL) 28 April 1998 (1998-04-28) figure 1 column 4, line 1 - line 20	1
A	US 4 714 357 A (NOWAKOWSKI ROBERT J ET AL) 22 December 1987 (1987-12-22) abstract figures 2,5 column 3, line 18 - line 34	1
A	US 5 795 076 A (BALL JAMES H ET AL) 18 August 1998 (1998-08-18) figures 22,28 column 10, line 49 - line 63	1
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

17 August 2004

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25/08/2004

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 3 787 105 A (GARDNER W) 22 January 1974 (1974-01-22) abstract figures 3,4	1
A	US 4 026 613 A (MORAVCHIK JOSEPH L) 31 May 1977 (1977-05-31) figure 3	1

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2004/003766

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5743657	A	28-04-1998	GB 2292192 A DE 69503138 D1 DE 69503138 T2 EP 0774080 A1 WO 9605442 A1 JP 10503827 T	14-02-1996 30-07-1998 18-03-1999 21-05-1997 22-02-1996 07-04-1998
US 4714357	A	22-12-1987	NONE	
US 5795076	A	18-08-1998	US 5951172 A US 5879085 A	14-09-1999 09-03-1999
US 3787105	A	22-01-1974	CA 996168 A1 DE 2356195 A1 ES 420552 A1 GB 1437995 A IT 996389 B JP 1114473 C JP 49135052 A JP 57002927 B NL 7316402 A ,B, SE 395255 B	31-08-1976 06-06-1974 01-07-1976 03-06-1976 10-12-1975 29-09-1982 26-12-1974 19-01-1982 06-06-1974 08-08-1977
US 4026613	A	31-05-1977	CA 1047086 A1	23-01-1979